

**Annual Environmental Report** 2012

October, 2012

# Annual Environmental Report 2012

#### USAID/BOLIVIA

Sustainable Economic and Environmental Development (SEGE)
Denise Fernández, COTR
Contract Number EEM-1-00-07-00008

#### October 2012

The opinions expressed by the authors of this publication don't necessarily reflect the opinions of the United States Agency for International Development, USAID, or those of the Government of the United States.

### **CONTENTS**

PRESENTATION	
PRECEDENTS	5
REPORT OBJECTIVES APPROACH AND METHODOLOGY	5 5
EVALUATION RESULTS	10
GENERAL RESULTSS RESULTS BY VALUE CHAIN	10 12
RECOMMENDATIONS	15
APPENDIXES	18

# BOLIVIAN PRODUCTIVITY AND COMPETITIVENESS PROJECT

Walter Núñez Chief of Party

John Carrasco

Deputy Chief of Party / Finance and Operations Manager

Luis Pardo

Technical Administrator / Value Chains and MSME Specialist

José Montaño

Monitoring and Evaluation Specialist

Cecilia Segovia

Training and Institutional Strengthening Specialist

Ximena Jáuregui

Institutional Communications Specialist

Eliana Roca Carolina Aramayo

Contracts and Institutional Strengthening Coordinators

Orlando Espinoza

Institutional Strengthening and Public-Private Partnership (PPP) Coordinator

#### **Presentation**

The 2012 Annual Environmental Report covers a year of BPC activities (October 2011 to September 2012); it is based on our experiences from this period and is defined in BPC's Annual Work Plan and in the Environmental Monitoring Manual.

The general objective of this Report is to account for the degree of compliance with environmental recommendations made by BCP to manufacturing MSMEs in the following value chains: Textile and Apparel, Wood and Wood Furniture, Processed Foods, and Biocommerce.

The Annual Environmental Report is presented in five different sections. In the first, named *Precedents*, we present BPC's support of MSMEs from the perspective of our experience in offering Technical Assistance services and in establishing thirty Public-Private Partnerships.

In the second section, named **Report Objectives**, the scope of this Environmental Report is detailed, arising from the objective of evaluating compliance with environmental recommendations made in the framework of Technical Assistance activities and Public-Private Partnerships carried out by BPC during fiscal year 2012.

The third section is named *Approach and Methodology*. It presents the idea behind the instruments used to elaborate the Report, which, based on BPC's Productivity Model, links the protection of the environment with growth in industrial productivity in diverse areas: management skills, workforce, machinery and infrastructure.

The fourth section is named *Evaluation Results*, which presents progress made during the fiscal year in three sub-sections: General Results, Results by Value Chain, and Results by Pollution Levels.

The fifth and last section, named *Recommendations*, presents a series of steps that need to be taken in order to improve the efficiency of future interventions regarding Cleaner Production and Energy Efficiency.

In addition to these chapters, the Report is complemented with two appendixes: (i) LIST OF USAID ENVIRONMENTAL DATASHEETS, which registers all of the Datasheets and Recommendations made in each of the value chains, which support the findings of this Report; and (ii) INSPECTION VISIT CHART, which provides a registry of all of the inspection visits carried out by BPC specialists in order to verify compliance with Environmental Suggestions made to supported MSMEs.

#### **Precedents**

From October 2011 to September 2012, BPC elaborated Environmental Datasheets and Mitigation Plans in compliance with USAID's Regulation 216 and the Cleaner Production and Energy Efficiency policies adopted in the framework of its interventions.

During this year, in addition to offering Technical Assistance to MSMEs in different value chains aimed at improving levels of productivity and competitiveness, BPC established thirty Public-Private Partnerships. PPPs are a co-financing development mechanism aimed at solving production bottlenecks in order to generate sustainable positive impacts in production and sales.

Looking to further develop the use of these mechanisms, BPC established a portfolio of PPPs with the purpose of increasing sales and production in MSMEs and Producer Associations (21 PPPs), mitigating pollution in industrial activities by technological innovation and cleaner production practices (8 PPPs), and improving MSME management (1 PPP). This diversity of applications of one mechanism shows the versatility and usefulness of PPPs in terms of spurring development and productive entrepreneurship in several sectors of Bolivian production.

In addition, the period for the 2012 Environmental Report perfected the use of the methodology of technical visits and survey of environmental information, by applying the Monitoring Manual which was developed as a guideline for these interventions; it also brings together what BPC has learned in previous years regarding key aspects of productive processes on which to focus prevention and mitigation measures.

### **Report Objectives**

The objectives of this report are framed in BPC's environmental responsibility: preventing and mitigating industrial pollution sources.

#### **General Objective**

Evaluate the compliance of BPC's Environmental recommendations in supported MSME's.

#### **Specific Objectives**

- Evaluate the effectiveness of PPPs and Technical Assistance activities in terms of mitigating environmental pollution.
- Make key recommendations for future industrial development interventions.

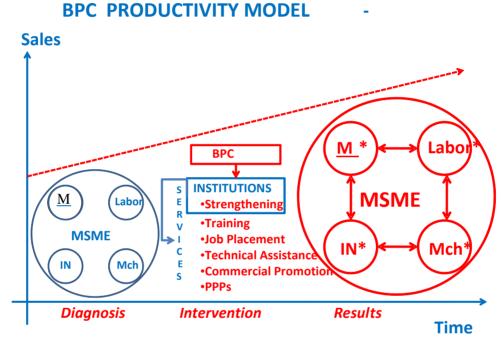
### Approach and Methodology

#### **Approach**

BPC's Productivity Model considers that levels of productivity and sales in MSMEs or Producer Associations result from an adequate combination of productive factors (Labor, Machinery, and Infrastructure) carried out by the Owning Manager by applying know-how and managerial skills.

In other words, an MSME is understood as a production function whose results depend on the quantity and quality of its productive efforts. From that perspective, BPC's role has been to raise productivity in all of the productive factors by offering business development services in order to cause greater levels of sales in the supported MSMEs.

The following graph summarizes this idea: BPC first receives and evaluates a support need from an MSME (marked in blue) wanting to grow in the market by increasing productivity in different aspects (marked with small blue circles). The current level of sales is represented by the diameter of the circumference which symbolizes the manufacturing MSME.



M= Management; Mch= machinery; IN= Infrastructure

After evaluating the technical relevance of the need expressed by the MSME, BPC decides to intervene through strengthened Local Subcontracted Institutions, which offer manufacturing MSMEs an array of business development services: training, job placement, technical assistance, commercial promotion, and Public-Private Partnerships.

The services through which MSME productivity is increased (marked in red in the graph above) are instruments which BPC has proven and validated over the last ten years in its work with manufacturing firms.

Lastly, after continually monitoring the provided support, BPC visits the MSME and determines the results obtained in increased sales, generation of jobs, and improvement in productivity levels. In the graph above, achievement in these areas is represented through the red circumference of the supported MSME and the double arrows joining the production factors. As a whole, they symbolize greater levels of productivity and efficiency in the supported firm.

BPC's final objective is to increase sales in manufacturing MSMEs or Producer Associations which require business development services. Raising productivity levels in MSMEs is meaningful only when it produces greater sales in the market. Greater sales supposedly arise from improving production levels in the firms, i.e., MSMEs or Producer Associations must produce more industrial goods to place them in the market, leading to increases in income.

In the current conditions of Bolivian industrial processing, greater levels of industrial production means that MSMEs will consume greater amounts of raw materials and consumables and will therefore increase their levels of polluting discharges.

As a consequence, BPC's conception of integral intervention requires that all activities aimed at increasing production be accompanied by activities aimed at minimizing pollution by reducing specific levels of consumables.

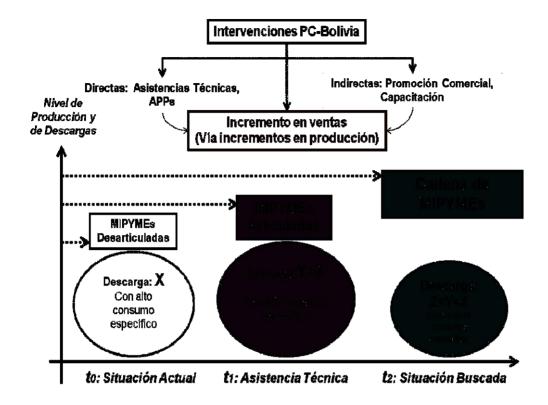
The dynamics for this type of intervention require the supported MSME to first measure specific levels of polluting discharges resulting from productive processes involving a higher level of use of specific consumables.

BPC's business development interventions then tend to increase levels of production and discharge up to a Y level (when Y is greater than X). This occurs because although the industrial MSME has increased its production levels, it has not yet reduced the usage level of specific consumables.

BPC then introduces Cleaner Production and Energy Efficiency practices. As a result, the supported MSME reduces its specific consumption levels, and as a consequence, its volume of polluting discharges is reduced to a Z level which is less than the initial registry of pollutants (i.e., less than X, and consequently less than Y). The following graph shows this through a green circumference, which is smaller than the other two.

The following graph shows BPC's tools to increase productivity in the upper section; the lower section, from left to right, shows the path followed by an MSME as it moves towards greater productivity and less pollution.

### ESQUEMA DE PRODUCCIÓN MÁS LIMPIA

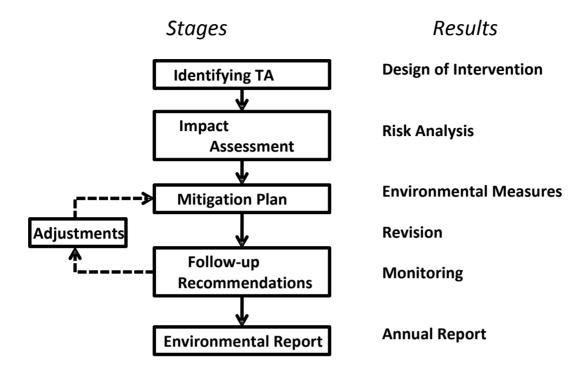


#### Methodology

Measuring the degree of compliance with environmental recommendations is the essence of the methodology applied by BPC in fiscal year 2012.

The Environmental Monitoring Manual establishes five stages towards constructing integral interventions from an environmental perspective. The following flow chart shows the intermediate and final results achieved during these five stages. This scheme allows BPC to elaborate the environmental datasheets required by USAID, and it also leads to permanent interaction between BPC technicians and the supported MSMEs.

### **FOLLOW-UP PROCESS**



Each of the five stages in the flow chart is explained below:

#### • Stage 1: Identifying Technical Assistance Needs

MSMEs which require Technical Assistance or which submit a proposal for a Grant Agreement as partners of a PPP must fill out a data base which describes its industrial processes, the raw materials it uses, the levels of polluting discharges it produces, and other economic variables. This process is carried out by our Subcontracted Institutions with BPC technical staff supervision.

This information, which allows BPC to design the intervention that it will carry out, already involves environmental measures which will be part of the Technical Assistance, or the PPP, which will then be executed in benefit of the manufacturing MSME.

#### • Stage 2: Impact Assessment

Once the type of intervention is defined (Technical Assistance or PPP), BPC staff members visit the MSMEs with the purpose of filling out the environmental datasheets and assessing possible environmental impacts arising from an increase in productivity and sales.

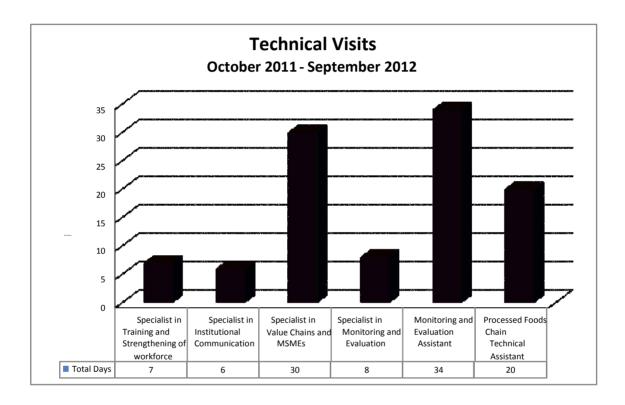
#### • Stage 3: Mitigation Plan

Once the potential environmental impacts have been identified, BPC elaborates a Mitigation Plan expressed in specific environmental recommendations. These recommendations, which are based on the risks identified in the environmental impact datasheets, are discussed with the MSMEs, which make a commitment to take them into consideration and implement them according to an established timetable.

Once the Technical Assistance or PPP has begun, BPC specialists in charge of supervising each value chain visit the supported MSMEs. If required, they make adjustments to the Environmental Impact Mitigation Plan. Once they feel that all of the identified risks are covered, they ratify the Mitigation Plan.

#### • Stage 4: Follow-up

BPC follows up and monitors environmental recommendations through inspection visits to the manufacturing MSMEs. Inspection visits are held before, during, and after BPC's interventions, as the following histogram shows:



#### • Stage 5: Annual Report

Based on the information obtained during these visits, the Annual Environmental Report is elaborated, focusing on the type of intervention and the type of supported MSME.

#### **Evaluation Results**

In this context, and following the described methodology, environmental monitoring shows more than 90% progress in the implementation of environmental recommendations. To aid understanding, the findings of this Report are classified in two categories: (1) evaluating the degree of fulfillment of environmental recommendations made during Technical Assistance activities, and (2) evaluating the degree of fulfillment with environmental recommendations in PPPs by value chain.

#### • Technical Assistance Evaluation

The execution of Technical Assistance activities in MSMEs proved that it is possible to combine increases in productivity with environmental impact mitigation measures. During the fiscal year, BPC carried out fifteen technical assistance activities:

- 11 Technical Assistance activities in the Textile and Apparel value chain.
- 1 Technical Assistance activity in the Wood and Furniture value chain.
- 3 Technical Assistance activities to implement PPPs in CP & EE.

These experiences have produced two main results. The first positive result is that MSMEs supported by BPC understand the importance of identifying environmental risks and preventing them. To the degree that environmental protection is clearly linked to MSME productivity, the "environmental awareness" of entrepreneurs and MSME technicians is greater. Nevertheless, the sustainability of this positive impact and its consolidation as a management practice in Bolivian manufacturing MSMEs does not depend solely on an entrepreneur's "environmental awareness". It is necessary to establish a legal framework which gives incentives to introducing environmental regulations (for example, reduction of legal payments for MSMEs which are able to achieve determined levels of reduction in water consumption or to mitigate environmental pollution).

A second important result is that supported MSMEs have carried out 91% of the short-term recommendations, i.e., Good Management Practices which do not require high investment due to their simplicity; these recommendations are generally aimed at improving and optimizing work in transformation processes and complying with basic environmental regulations.

The following charts show the progress made in complying with environmental recommendations arising from technical assistance activities in the previously mentioned value chains: Textile and Apparel, Wood and Furniture, and Cleaner Production.

	BPC TECHNICAL ASSISTANCE EVALUATION CHART  Textile and Apparel Value Chain  October 2011 to September 2012					
Type of Technical Assistance	Environmental Risks	Recommendations	Progress			
Technical assistance and training in stamping processes to subcontracted MSMEs which place their products in the Brazilian market. Support consisted of improving conditions and stamping processes.	Persistence of emanations and polluting smells	Recommend using face masks and installing stamping machine in ventilated places. Place warning signs.	Support leading firms in the installation of stamping lines, training workers in the use of adequate work clothes, keeping the work areas ventilated, and using correct amounts of dyes.			
Technical assistance to clothing firms In finishing processes for new patterns and designs (women's, men's and children's clothing).	Eliminating polluted waters resulting from the pre-washing of blue jeans	Recommend optimizing water use. Recommend adequate dosage of detergents. Consider recycling processes in the future.	Firms have been trained to reduce the water used for each washed garment and to eliminate waste without compromising other water sources.			

BPC TECHNICAL ASSISTANCE EVALUATION CHART  Technical Assistance in CP & EE  October 2011 to September 2012							
Type of Technical Assistance	Type of Technical Assistance Environmental Risks Recommendations Progress						
Technical assistance and training in industrial processes, focusing on saving water and energy and reducing environmental pollution.	Raising production will increase polluting discharges. Potential risk of external damage in the elimination of waste.	Introduce CP & EE Practices. Assist firms in incorporating Good Manufacturing Practices and clean technology in their productive processes	Besides improving production processes, introducing GMP and encouraging certification with SENASAG, the supported firms were trained in Cleaner Production.				

BPC TECHNICAL ASSISTANCE EVALUATION CHART  Wood and Furniture Value Chain  October 2011 to September 2012					
Type of Technical Assistance	Environmental Risks	Recommendations	Progress		
Technical assistance and training in quality furniture finishing processes. Support consisted of improving conditions and efficiency in the furniture varnishing and painting processes.	Persistence of emanations and polluting smells. Potential risk of purchasing uncertified raw materials.	Recommend use of facemasks and ensure ventilated places. Place warning signs. Demand certifications for legal wood.	Firms have been trained in furniture finishing techniques. Ventilation was recommended for work areas. Verification of legally purchased raw materials.		

#### Evaluation of Public-Private Partnerships

BPC's portfolio of thirty PPPs has the following distribution:

- 21 Productive PPPs
- 8 PPPs in CP & EE
- 1 PPP in Education

Involving environmental aspects in this group of partnerships has produced three lessons. The first refers to the twenty-one productive PPPs, which are mostly aimed at increasing sales in our partner MSMEs. In these interventions, results are practically the same as those obtained through technical assistance activities: 93% of the MSMEs have fulfilled the short-term environmental recommendations. The remaining 7% will fulfill recommendations as investments are executed by our partner MSMEs; the execution phase of the investments is expected to occur in September 2013. Regarding the long-term efficiency of Cleaner Production practices, it is necessary to complement efforts made by International Cooperation Agencies and Bolivian firms with state policies aligned with said practices and environmental principles.

The second lesson refers to the eight PPPs in Cleaner Production and Energy Efficiency. These have not only fulfilled 100% of the short-term environmental recommendations, but they have also fully complied with the mid-term recommendations, which involve the incorporation of equipment and machinery. This result can be explained because the objective of these PPPs is precisely the implementation of cleaner production and energy efficiency through investments which guarantee the reduction of specific consumptions and minimize environmental pollution. In other words, PPPs are ideal mechanisms for the introduction of CP & EE in manufacturing MSMEs.

The third lesson refers to the establishment of a Public-Private Partnership in education. In this case, the environmental recommendation consisted of including environmental issues in the course plan for the

MBA in MSMEs co-financed by BPC and the Bolivian Catholic University aimed at developing teachers specialized in the MSME area. Students in this program took two course modules addressing environmental issues, guaranteeing that CP & EE will be taught to MSME entrepreneurs in future educational processes.

Results by value chain are supported by the twenty-nine PPPs established by BPC with manufacturing MSMEs and Producer Associations (since one of the PPPs is in the area of education and is considered transversal to all value chains) and the Technical Assistance activities carried out in the Wood and Wood Furniture value chains (since no PPPs were established in this value chain).

#### • Processed Foods Value Chain

One of the noticeable trends in this value chain is the permanent growth of demand for food products in general. In Bolivia, population growth and migration from rural areas to the cities have resulted in greater levels of family food consumption. These factors, added to greater liquidity in the domestic market, have created a scenario in which the demand for food will be greater than growth rates in the other value chains. The sixteen PPPs in this value chain are framed in this context, that of a sure market for Bolivian foods. The status of execution of environmental recommendations is summarized in the following table:

#### PPPs in the Processed Foods Chain Value Chain

MSME or Association	Environmental Datasheet	Short-term Recommendations	Long-term Recommendations
AFIPAC	Yes	98%	60%
APAFAM	Yes	100%	50%
APAJIMPA	Yes	97%	70%
APROMAJI MUYUPAMPA	Yes	92%	75%
APROMAJI PEDERNAL	Yes	88%	60%
ASOPROMANI	Yes	97%	60%
CIAPEC	Yes	95%	70%
UNEC	Yes	100%	80%
NAKHAKI	Yes	95%	70%
SUMITA	Yes	100%	80%
AGROCAINE	Yes	95%	90%
PROSOL	Yes	99%	80%
BOLIVIA NATURAL	Yes	100%	80%
DESIERTOS BLANCOS	Yes	100%	90%
INMUNOVIDA	Yes	100%	85%
SAC – BIOLAC	Yes	100%	85%
General Evaluation	All	93%	75%

#### • Biocommerce Value Chain

In terms of the number of established PPPs, this is the second most important value chain, in which four entrepreneurships were supported.

This value chain has high potential for growth as a result of an increasing attitude of respect for nature and the adoption of sustainable management practices. Although the outlook for the sector points to growth, the sector is highly dependent on chestnuts. This product from the Amazon forest is the industrial raw material used for the elaborations of oils, lotions, and soaps produced by MSMEs. Its industrial use is also the base for the process of gathering fruits from the forest, a key aspect in terms of the quantities and the quality of the raw materials which are to be processed. The following table summarizes the degree of compliance with environmental recommendations in this value chain:

#### PPPs in the Biocommerce Value Chain

MSME or Association	Environmental Datasheet	Short-term Recommendations	Long-term Recommendations
OLEUNS BEAUTY	Yes	95%	95%
COSNATVAL	Yes	100%	95%
ADA	Yes	95%	85%
NOEMI PENSANDO EN TI	Yes	100%	75%
General Evaluation	All	95%	87%

#### • Textile and Apparel Value Chain

This chain is mostly made up of small apparel-producing units which, due to the closing of foreign markets (the U.S.), have restructured their associations, reoriented their production in terms of design and quality, and made efforts to place their products in the Venezuelan and regional markets. Nevertheless, since the clothing market is one of the most dynamic sectors worldwide, manufacturing MSMEs are constantly facing the need to change.

One of the most frequent needs in apparel producing MSMEs is the finishing of garments, and the need for different techniques, such as stamping of polo shirts, shirts, and blouses. With the purpose of solving this production bottleneck, BPC established a PPP with the Téllez firm, which produces stamping machinery. Normally, stamping machinery, called "the Octopus", is imported from China at high prices. Producing this machinery in El Alto means, first, a technological innovation; second, a service connected to the Textile and Apparel chain, which will also have machinery maintenance services at its disposition; third, reduction of expenses by MSMEs as they substitute Chinese importations for locally-produced stamping machinery. Environmental recommendations, consisting of working in open spaces, have been fully implemented by the partner MSME of this PPP.

#### Wood and Furniture Value Chain

Technical Assistance activities in the Wood and Wood Furniture value chain have ratified the policy of encouraging MSMEs which use wood as a raw material to obtain their supplies from certified suppliers. In other words, 100% of the supported MSMEs in this value chain have complied with the recommendation

of linking their production to suppliers who work under resource management plans and who are authorized by the respective legal departments.

#### PPPs in Cleaner Production & Energy Efficiency

BPC defined Cleaner Production Practices as the set of methods, techniques, and technologies which allow MSMEs to optimize the use of consumables, raw materials, water and energy, thus minimizing or mitigating environmental pollution.

The eight PPPs in the CP & EE area are an example of the application of a co-financing mechanism aimed at minimizing negative external industrial effects while at the same time increasing levels of production and productivity in the MSMEs. In addition to fulfilling the resource leveraging objectives, these PPPs were established with the following specific objectives:

- Generate savings in specific usage levels consumables and energy, including water.
- Improve the quality of residual discharges in order to meet environmental regulation thresholds.
- Reuse and recycle materials and industrial consumables, especially water, with the purpose of reducing the volume of residual discharges.

These specific criteria referring to environmental issues were included in the initial stages of the establishment of the PPPs, which explains why 100% of the short and mid-term environmental recommendations have been fulfilled by our eight PPP partners, as detailed in the table below:

#### **PPPs in Cleaner Production & Energy Efficiency**

MSME or Association	Environmental Datasheet	Short-term Recommendations	Long-term Recommendations
PELLETBOL	Yes	100%	100%
APLENA – T	Yes	100%	100%
PROINPA	Yes	100%	100%
SAN LORENZO TANNERY	Yes	100%	100%
SAN JUAN TANNERY	Yes	100%	100%
LOS ANDES ASSOCIATION	Yes	100%	100%
NUEVA ESPERANZA ASSOCIATION	Yes	100%	100%
SAN CARLOS ASSOCIATION	Yes	100%	100%
General Evaluation	All	100%	100%

#### **Recommendations**

The following recommendations are made to point out key aspects so that other similar initiatives, i.e. industrial development projects, will be able to be more efficient in understanding and preventing environmental risks when increasing productivity and competitiveness in manufacturing firms.

#### • Integral Approach

For the purposes of intervention, research, or recommendations, it's convenient to diagnose MSMEs that are to be intervened from an integral perspective, i.e., considering all of the links in the productive chain and evaluating all of its dimensions: economic, technical, environmental, social, organizational, and strategic.

In this sense, filling out the environmental assessment datasheets end elaborating mitigation plans must not be understood as mere activities that have to be carried out in order to meet a requirement, but as the instrument which will guarantee a complete vision of the problems in Bolivian industrial development: low productivity and negative impact on the Bolivian society.

The PPPs established during the 2012 fiscal year, especially the eight PPPs in CP & EE, are an intervention pilot sample for fulfilling entrepreneurial objectives of raising production and sales in MSMEs, while at the same time fulfilling their environmental responsibility of minimizing industrial pollution.

#### Environmental Risk Levels

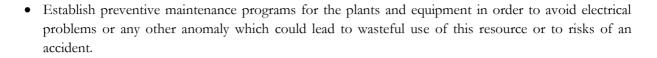
From BPC's experience, it is evident that industrial processes which require greater amounts of water in their production processes, called humid processes, tend to be more polluting that dry processes, which use little or no liquid input.

As an example from the same chain, in the Textile and Apparel value chain, it is evident that the laundry sector presents the highest environmental risk since its processes involve using and discharging water. The laundry sub-sector has high levels of water and detergent use, as the combination of these consumables is required to wash the jean fabric in order to fade it. This technical characteristic is made worse by the informality of manufacturing MSMEs, which pump water out of underground wells, carry it to the plant, and then discharge the used water into the drain. On the other hand, the apparel-producing sector is basically innocuous to the environment.

#### **General Recommendations**

Optimizing water use and reducing residual water discharges are key aspects to obtain positive economic and environmental impacts in future interventions. The following general recommendations seek to enlist a minimum of key factors which industries must consider in order to operate under Cleaner Production parameters:

- Encourage the introduction of water-saving practices and optimizing the use of this resource.
- Encourage the construction of recycling pools and water-treatment plants so that discharges are treated before being emptied into the draining system.
- Promote Good Manufacturing and Industrial Safety Practices.
- Measure increase in productivity (via reduction of production costs) which will highlight the implementation of CP & EE measures.
- Encourage fulfillment of national environmental regulations, especially Environmental License and Discharge Quality.
- Encourage the relocation of plants with high environmental risks to Industrial Parks.
- Keep BPC's incentive policies, which reward MSMEs which obtain their wood supplies from legal and certified origins.



APPENDIX 1

# LIST OF ENVIRONMENTAL DATASHEETS BY VALUE CHAIN

(October 2011 to September 2012)

	USAID EN		ASHEETS OCTOBER 2011 Icrafts Value Chain	SEPTEMBER 2012		
# Code Activity Institution Start Date						
1	004	Grant	OEPAIC Network	12/13/2011		

	USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 2012  Multi-Sector						
#	Code	Activity	Institution	Start Date			
1	001	Grant	Santa Cruz Job Fair	10/27/2011			
2	002	Grant	Business Strengthening: COTEXBO, CDE, GAMLP	11/16/2011			
3	003	Grant	Accidental del Sur Association	11/04/2011			
4	004	Grant	FEICOBOL	4/09/2012			

	USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 2012 Institutional Strengthening						
#	Code	Activity	Institution	Start Date			
1	001	Grant	National Chamber of Industries	12/05/2011			
2	002	Grant	IBNORCA*	12/05/2011			
3	003	Grant	BIONATIVA*	12/05/2011			
4	004	Grant	OEPAIC Network	12/05/2011			
5	005	Grant	COTEXBO	12/05/2011			

<sup>\*:</sup> Surveyed activities, but not carried out.

	USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 20122012  Biocommerce Value Chain							
#	Code	Activity	Institution	Start Date				
1	004	Technical Assistance	Minkanaku	11/14/2011				
2	005	Grant	Noemí pensando en ti	3/14/2012				
3	007	Grant	ADA	5/16/2012				
4	800	Grant	HUMUS San Carlos	7/18/2012				
5	009	Grant	HUMUS Nueva Esperanza	7/18/2012				
6	010	Grant	HUMUS Los Andes	7/18/2012				
7	011	Grant	PROINPA	7/25/2012				

	USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 2012  Processed Foods Value Chain						
#	Code	Activity	Institution	Start Date			
1	021	Grant	Desiertos Blancos	12/05/2011			
2	022	Grant	Alimentos Bolivia Natural	3/05/2012			
3	023	Technical Assistance	National Chamber of Industries	11/07/2011			
4	024	Technical Assistance	INTERCON	10/10/2011			
5	025	Grant	AGROCAINE	3/12/2012			
6	026	Technical Assistance	CREAR	11/07/2011			
7	027	Grant	PROSOL	3/12/2012			
8	028	Grant	BIOLAC	4/09/2012			
9	029	Grant	APLENA-T	6/04/2012			
10	030	Grant	Alimentos Orgánicos	5/07/2012			

USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 2012					
Wood and Furniture Value Chain					
#	Code	Activity	Institution	Start Date	
1	009	Grant	Expomueble Tradeshow	12/08/2011	
2	010	Grant	Forest Chamber	2/28/2012	
3	011	Grant	CAMEX Wood-buyer Delegation 5/02/201		
4	012	Grant	FIMA Tradeshow 7/04/2012		

USAID ENVIRONMENTAL DATASHEETS OCTOBER 2011 - SEPTEMBER 2012  Textile and Apparel Value Chain					
#	Code	Activity	Institution	Start Date	
1	024	Grant	San Lorenzo Tannery	6/25/2012	
2	025	Grant	San Juan Tannery 6/25/20		
3	026	Grant	Sucre Hats*	6/25/2012	
4	027	Grant	Chuquisaca Hats* 6/25/2		
5	028	Grant	CAMEX Business Roundtable 9/05/2012		

<sup>\*:</sup> Surveyed activities, but not carried out.

### APPENDIX 2

### Inspection Visit Chart October 2011 - September 2012

N°	Name	Date	Location	Firms	Progress Made on Recommendations
1	Cecilia Segovia	January 12 - 13	Cochabamba	Trailer - Edzil - Eazzy Jeans	The firms have been incorporating recommendations according to timetable
2	Cecilia Segovia	January 18 - 20	Santa Cruz	Obvio Jeans - Gas Oil - Expresiva	The firms require greater supervision in view of the fact that there are delays in the implementation of recommendations.
3	Cecilia Segovia	February 29 - March 1	Cochabamba	Batos - Emcom - Jema - Mio	The firms have complied with all observations
4	Ximena Jauregui	March 21 - 23	Santa Cruz	Wood Tradeshow	The firm doesn't present any environmental risks
5	Ximena Jauregui	August 16	Oruro	Desiertos Blancos	The firm has carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
7	Luis Pardo	December 14 – 15	Santa Cruz	Interviews: YESMAR - APOSTROFE – IMB	The firms have adjusted implementation plans
8	Luis Pardo	January 11 - 12	Cobija	Postres Amazónicos	The firm has incorporated other recommendations into its mitigation plans.
9	Luis Pardo	January 24 - 25	Santa Cruz	ADA	The firm requires greater supervision in view of the fact that there are delays in the implementation of recommendations.
11	Luis Pardo	March 1	Cochabamba	AGROCAINE	The firm doesn't present any environmental risks
13	Luis Pardo	March 16	Santa Cruz		The firm doesn't present any environmental risks
14	Luis Pardo	March 25 - April 1	Cuzco	Environmental Workshop	The firms require greater supervision in view of the fact that there are delays in the implementation of recommendations.
16	Luis Pardo	April 18 - 20	Cochabamba Sucre	Negotiations with Chuquisaca and Sucre Hats	The firms have been incorporating recommendations according to timetable
17	Luis Pardo	May 17 - 18	Sucre	Chuquisaca and Sucre Hats	The firms require greater supervision in view of the fact that there are delays in the implementation of recommendations.
18	Luis Pardo	May 24 - 25	Tarija	San Juan and San Lorenzo Tanneries	The firms have complied with all observations
19	Luis Pardo	August 16	Oruro	Desiertos Blancos	The firm doesn't present any environmental risks
20	Luis Pardo	September 19 – 20	Tarija	UNEC - Inmunovida – Tanneries	The firms have carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
21	Jose Montaño	January 25 - 26	Cochabamba	COSNATVAL	The firm has been incorporating recommendations according to timetable

22	Jose Montaño	April 3 - 4	Cochabamba		The firms have adjusted implementation plans
23	Jose Montaño	May 30 - 31	Cochabamba	COSNATVAL	The firm has incorporated other recommendations into its mitigation plans.
25	Adhemar Aparicio	October 20 - 22	Cochabamba Santa Cruz	COSNATVAL	The firms require greater supervision in view of the fact that there are delays in the implementation of recommendations.
26	Adhemar Aparicio	October 28	Santa Cruz	ADA	The firm has complied with all observations
27	Adhemar Aparicio	December 11 – 12	Tarija	Inmunovida	The firm has adjusted implementation plans
28	Adhemar Aparicio	January 12 - 13	Cochabamba	Monitoring of sales and indicators	The firms have been incorporating recommendations according to timetable
29	Adhemar Aparicio	January 24 - 26	Santa Cruz	Monitoring of sales and indicators	The firms require greater supervision in view of the fact that there are delays in the implementation of recommendations.
30	Adhemar Aparicio	March 15 - 24	Santa Cruz	Monitoring of sales and indicators	The firms have complied with all observations
31	Adhemar Aparicio	April 11 - 13	Sucre Padilla	APAJIMPA - APAFAM EI Villar	The firms have adjusted implementation plans
32	Adhemar Aparicio	May 30 - June 1	Santa Cruz	Monitoring of sales and indicators	The firms have incorporated other recommendations into its mitigation plans.
33	Adhemar Aparicio	June 13 - 14	Cochabamba	APIMEC – ADES	The firms have carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
34	Adhemar Aparicio	July 4 – 5	Tarija	UNEC - Inmunovida – Tanneries	The firms have complied with all observations
36	Pamela Carrasco	December 5 - 9	Santa Cruz Cochabamba	AGROCAINE - Etrai - Decmec - Servicios Empresariales - APIMEC – ADES	The firms have carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
37	Pamela Carrasco	December 21	Oruro	Desiertos Blancos	The firm doesn't present any environmental risks
38	Pamela Carrasco	February 1 - 2	Cochabamba Santa Cruz	Cleaner Production Workshops	The firms have complied with all observations
40	Pamela Carrasco	March 28	Santa Cruz	ADA	The firm has complied with all observations
41	Pamela Carrasco	April 19 - 20	Tarija	San Juan and San Lorenzo Tanneries	The firms have carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
42	Pamela Carrasco	May 17 - 18	Sucre	Chuquisaca and Sucre Hats	The firms have incorporated other recommendations into their mitigation plans.
43	Pamela Carrasco	May 24 - 25	Tarija	UNEC - Inmunovida - Tanneries	The firms have carried out investments; in addition to fulfilling short-term recommendations, progress has been made in long-term recommendations
44	Pamela Carrasco	September 18 – 19	Cochabamba	Opri Sport - Mio - Moda Sabrina - Trailer - Eazzy Jeans	The firms have incorporated other recommendations into their mitigation plans.